

5 DYNAMIC CONTROL GRAPHS FOR ANALYSIS OF  
COORDINATION CENTRIC SOFTWARE DESIGNS

Abstract of the Disclosure

- 10 Static analysis can be of great benefit in debugging complex systems.  
Traditional runtime debugging is necessary because certain software errors cannot be  
detected until after they are compiled into execution errors. Static analysis can reduce  
the number of such errors and can aid designers by illuminating subtle design  
interactions. Disclosed are various systems and methods for static analysis that can be  
15 applied to coordination-centric systems, including typechecking, consistency  
checking, and conflict detection through automatically derived abstract views, and  
model checking. The static analyses presented here comprise a form of preemptive  
debugging for coordination-centric software systems.